

REMARKS

Pending Claims

Claims 1-22 are all the claims pending in the application.

Preliminary Matters

Claim to Foreign Priority

The Applicant requests Examiner to acknowledge the claim to foreign priority and requests confirmation that the certified copy of the priority document was received.

Information Disclosure Statement

Applicant thanks the Examiner for initialing the references listed on form PTO/SB/08 submitted with the Information Disclosure Statement filed on February 25, 2004.

Drawings

Again, Applicant thanks the Examiner for acknowledging and accepting the drawings filed on November 21, 2003.

Double Patenting

Claims 1, 6-11 and 18-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 and 9-13 of copending Application No. 10/718,423 in view of Scott et al. (US 6,154,486, "Scott"). A terminal disclaimer is attached and as such the rejection should be overcome.

Claim Rejections - 35 U.S.C. § 112

Claims 6, 7, 18 and 19 are rejected under 35 U.S.C. § 112, second paragraph, for the reason set forth at page 2 of the Office Action.

Claims 6, 7, 18 and 19 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 and 7 do not recite the opposite of each other, despite the Examiner's assertion to the contrary. Claim 6 recites "comprise moments of order greater than 2," whereas claim 7 recites "comprise moments of order 0 to k, ... where k is a larger integer than 2." These are consistent with each other. Claims 18 and 19 recite the same limitations as claims 6 and 7 and therefore they too are consistent with each other. The Examiner is respectfully requested to reconsider this rejection, and to withdraw the rejection of these claims.

Claim Rejections - 35 U.S.C. § 103

Claims 1 and 11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over DiFazio (US 2003/0063576) in view of Scott et al. (US 6,154,486, "Scott"). The Applicant respectfully traverses the rejection.

Claim 1 recites, *inter alia*, a method for detecting a signal burst wherein:

"a detection magnitude is evaluated on the basis of the estimated channel parameters and of a correlation between a signal received at the receiver system and the predetermined digital sequence, wherein the detection magnitude is compared with an adaptive detection threshold to decide whether the signal burst is detected."

DiFazio discloses a burst detector that receives a communication signal divided into a plurality of timeslots, wherein the timeslots include a plurality of channels and wherein the burst detector detects a burst when a selected one of the plurality of channels of the communication is received. DiFazio uses a TFCI Decoder 93 to get an energy estimate for the first matched filter 91 and forwards this information to the comparator 94.¹ The comparator 94 takes the energy

¹ "The TFCI decoder 93 generates an energy estimate of the decoded TFCI word from the soft symbols output by the first matched filter 91. This energy estimate is forwarded to the comparator 94 for
... (footnote continued)

estimate and the noise estimate and then outputs a signal to the data estimation device which, in turn, activates the CCTrCh.²

The Examiner alleges a detection magnitude is disclosed by the signal power of DiFazio (Office Action, page 4). Further, the Examiner alleges the detection magnitude is compared with a detection threshold to decide whether a signal burst is detected, citing the comparator 14 for support. However, the claim recites “the detection magnitude is compared with an adaptive detection threshold to decide whether the signal burst is detected” and this is not disclosed by DiFazio.

The comparator 94 of DiFazio takes in two inputs, an energy estimate and a noise estimate, and then outputs a signal to the data estimation device. Even assuming *arguendo* that the detection magnitude was the output of the signal power estimation device as alleged, for the “comparison” of claim 1 to correspond to the comparator 94, the other input to the comparator 94 would need to be an adaptive detection threshold. It is not. The other signal going into the comparator is a noise estimate (Fig. 9). A noise estimate is not an adaptive detection threshold. Furthermore, the alleged adaptive detection threshold, the noise estimate, would also need to be adaptive and DiFazio does not disclose the noise estimate as being adaptive. Therefore, claim 1 is patentable over DiFazio.

Moreover, Scott does not overcome the above noted deficiencies in the disclosure of DiFazio. Even taken for what they would have meant as a whole to an artisan of ordinary skill, the combined teachings of these two references would not have (and could not have) led such a person to the subject matter of independent claim 1. Applicant therefore respectfully requests the Examiner to withdraw this rejection of independent claim 1.

comparison to a scaled noise estimate. The noise estimate in this alternative burst detector 90 is generated by the second matched filter 92.” (DiFazio, paragraph [0050]; Fig. 9).

² If the estimated signal power for the particular code carrying the TFCI in the first timeslot allocated to the CCTrCh in a frame is greater than the scaled estimated noise power, the comparator 14 outputs a signal, to the data estimation device 2 indicating that the end of DTX has been detected, which results in the data estimation device activating the CCTrCh.” (DiFazio, paragraph [0032]).

Claim 11 recites limitations sufficiently analogous to those mentioned above with respect to independent claim 1 so that the Examiner will surely and readily grasp the patentable distinctions present in claim 11. Applicant therefore respectfully requests the Examiner also to withdraw this rejection of claim 11.

Claims 1, 2, 8, 11, 12, 16, 17 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Scott et al. (US 6,154,486, "Scott") in view of DiFazio (US 2003/0063576). Applicant has already pointed the reasons that the claimed subject matter is patentably distinguished from the DiFazio/Scott combination. Applicant respectfully submits that the Scott/DiFazio combination suffers from the same deficiencies as the DiFazio/Scott combination, for reasons that need not be set out in any detail beyond that already mentioned above. Applicant therefore respectfully requests the Examiner to withdraw this rejection as well, with respect to the independent claims and also their respective dependent claims.

The dependent claims have been rejected on the same basis as the independent claims, namely, the combined teachings of DiFazio and Scott, in view of other less relevant references. In particular, claims 4, 5, 14 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Scott et al. (US 6,154,486, "Scott") in view of DiFazio (US 2003/0063576) and further in view of Karlsson et al. (US 2002/0057730, "Karlsson"). In addition, claims 10 and 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Scott et al. (US 6,154,486, "Scott") in view of DiFazio (US 2003/0063576) and further in view of Bhatooolaul et al. (US 2001/0046864, "Bhatooolaul").

Having studied the four cited documents, and having considered what they would have meant as a whole to the artisan of ordinary skill, Applicant respectfully submits that neither Karlsson, nor Bhatooolaul, nor the two of them combined, remedy the above-identified deficiencies of the DiFazio/Scott - Scott/DiFazio combination. The resultant is lacking with respect to the above-identified express limitations of the independent claims, and so it is clear that the dependent claims are certainly not rendered unpatentable thereby. The Examiner's kind reconsideration and review are thus respectfully requested, as is the withdrawal of these more specific prior art rejections.

Allowable Subject Matter

Claims 3, 9, 13 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Examiner is requested to hold the status of these claims in abeyance pending the resolution of the base claims.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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